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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/616,722

07/10/2003

Si Bum Kim

29936/39463

2678

4743

7590

10/13/2005

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EXAMINER

KENNEDY, JENNIFER M

ART UNIT

PAPER NUMBER

2812

DATE MAILED: 10/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action Before the Filing of an Appeal Brief	Application No. 10/616,722	Applicant(s) KIM, SI BUM	
	Examiner Jennifer M. Kennedy	Art Unit 2812	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 29 September 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
- (a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ They raise the issue of new matter (see NOTE below);
- (c) ☒ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet. (See 37 CFR 1.116 and 41.33(a)).


4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
- The status of the claim(s) is (or will be) as follows:
- Claim(s) allowed: _____.
- Claim(s) objected to: _____.
- Claim(s) rejected: 1-6, 8-13.
- Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: see Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). _____
13. ☐ Other: _____.


 Jennifer M. Kennedy
 Primary Examiner
 Art Unit: 2812

Continuation of 3. NOTE: the added claims 15-20 would require further search and/or consideration.

Continuation of 11. Applicant's arguments filed September 29, 2005 have been fully considered but they are not persuasive. The examiner notes that the combination of AAPA, Ho and Chou disclose the limitations as claimed. Similarly the combination of AAPA, Ho and Talieh disclose the limitations as claimed. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Applicant argues that Ho teaches nothing about polishing by turning off a negative power supply applied to a substrate, and applying a positive power supply to a copper layer and a copper barrier layer. The examiner notes that Ho was not relied upon to show this feature. Rather Ho was relied upon to show the method of polishing the copper layer by means of a copper electro-polishing process to form a polished copper layer having a flat surface and a thin thickness; and polishing thereafter by means of a chemical mechanical polishing process so that the surface of the interlayer insulating film is exposed, thereby forming copper wirings within the damascene patterns (see [0036]-[0039]).

Applicant goes on to state that Chou does not disclose polishing by turning off a negative power supply applied to a substrate and applying a positive power supply to a copper layer and a copper barrier layer. Chou was not relied upon to show a copper layer and a copper barrier layer. Rather Chou was relied upon to disclose utilizing a single apparatus to perform an electroplating process and an electro polishing process by changing the negative power supply to a positive power supply (see column 2 lines 43 through column 3, lines 12). The examiner notes that the electrical contacts are made to the wafer (see Chou column 3, lines 1-5) and Chou discloses the method wherein the by changing the sign of the applied potential causing current reversal is indeed turning off the negative power supply and applying a positive power supply.

Applicant makes similar arguments with respect to Talieh. The examiner notes that Talieh discloses utilizing a single apparatus to perform an electroplating process and an electro polishing process by changing the negative power supply to a positive power supply (see column 4 lines 60 through column 5, lines 32). The examiner notes that the electrical contacts are made to the wafer (see Talieh, Figure 1B, items 28, 30) and Talieh discloses the method wherein the by changing the sign of the applied potential causing current reversal is indeed turning off the negative power supply and applying a positive power supply.

The examiner notes that "turning off" the negative power supply must be nothing more than changing the potential of the power supply from negative to positive because otherwise there would be no support for the term "turning off" in the originally filed application and a new matter situation would arise.